Idaho Department of Environmental Quality

Draft §401 Water Quality Certification

May 1, 2017

404 Permit Application Number: NWW-2016-355-B02; Pine Creek Road Bridge

Applicant/Authorized Agent: Forrest Greenfield, Shoshone County Public Works; authorized agent Kenneth Sorensen, P.E. JUB Engineers, Inc. 7825 Meadowlark Way Coeur d'Alene
Project Location: Latitude 47º 31' 09" N Longitude -116º 14' 30"W located approximately 1.3 miles south of I90 and 0.6 miles south of Pinehurst city limits

Receiving Water Body: Pine Creek

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review activities receiving Section 404 dredge and fill permits and issue water quality certification decisions.

Based upon its review of the joint application for permit, received on April 13, 2017, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the activity will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits.

Project Description

The purpose of the project is to replace an 87 foot long 26 foot wide three span bridge with a single span structure that meets current road design standards. The current bridge is 63 years old and at the end of its service life. The proposed new bridge will be 120 feet long by approximately 37 feet wide and will sit one foot higher than the old structure. It will also include a deep foundation beneath the bridge to prevent scour, a reoccurring problem with the current bridge. The foundation will require excavation of 421 cubic yards of streambed to be replaced with 421 cubic yards of riprap (D50 of 2 feet).

Work will be done during the low flow timeframe from July through October 2017. During removal of the old bridge, dredging of the streambed and placement of riprap, the stream will be diverted using a cofferdam. The cofferdam will either be a pipe or other non-erosional diversion

that ensures that sediment and debris from construction activities do not enter the stream (see certification conditions). Dewatering needs will be handled per conditions of this certification so turbid and metals contaminated waters are not discharged into Pine Creek. The existing bridge will be sampled for the presence of asbestos. If discovered, its removal and disposal will be guided by ITD's directives.

Pine Creek is within the Bunker Hill Superfund site and therefore subject to regulation by the Institutional Controls Program (ICP) administered by the Panhandle Health District in Kellogg. Disposal of the 421 cubic yards of sediment dredged from Pine Creek is likely contaminated with metals. Its disposal along with demolition debris and other waste materials will be guided by the ICP program as necessary or hauled to an approved disposal facility (see certification condition).

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The primary pollutants of concern for this project are cadmium, lead, zinc and sediment. As part of the Section 401 water quality certification, DEQ is requiring the applicant comply with various conditions to protect water quality and to meet Idaho WQS, including the water quality criteria applicable to these pollutants.

Receiving Water Body Level of Protection

This project is located on Pine Creek within the South Fork Coeur d'Alene Subbasin assessment unit (AU) ID17010302PN002_04 (East Fork Pine Creek to mouth). This AU has the following designated beneficial uses: cold water aquatic life, salmonid spawning and secondary contact recreation. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

According to DEQ's 2012 Integrated Report, this AU is not fully supporting its aquatic life use. Causes of impairment include sediment, cadmium, lead and zinc. As such, DEQ will provide Tier 1 protection (IDAPA 58.01.02.051.01) for the aquatic life use. The contact recreation beneficial use is unassessed. DEQ must provide an appropriate level of protection for the contact recreation use using information available at this time (IDAPA 58.01.02.052.05.c). Monitoring data indicate Pine Creek dissolved zinc concentrations exceed cold water aquatic life criteria by one to three times its value but remain less than the human health criteria (*Final Focused Feasibility Study Report Upper Basin of the Coeur d'Alene River, Bunker Hill Mining and Metallurgical Complex Superfund Site Volume 1*, CH2MHill, August 2012 and *Technical Memorandum: OU2 2008 Groundwater/Surface Water Interaction Monitoring Data Summary*, CH2MHill, March 2009). For this reason DEQ is providing Tier II protection, in addition to Tier I protection, for the recreational uses in Pine Creek for this project (IDAPA 58.01.02.051.02; 58.01.02.051.01).

Protection and Maintenance of Existing Uses (Tier I Protection)

As noted above, a Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. Once a TMDL is developed, discharges of causative pollutants shall be consistent with the allocations in the TMDL (IDAPA 58.01.02.055.05). Prior to the development of the TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect uses (IDAPA 58.01.02.055.04).

During the construction phase, the applicant will implement, install, maintain, monitor, and adaptively manage best management practices (BMPs) directed toward reducing erosion and minimizing turbidity levels in receiving water bodies downstream of the project. In addition, permanent erosion and sediment controls will be implemented, which will minimize or prevent future sediment contributions from the project area. As long as the project is conducted in accordance with the provisions of the project plans, Section 404 permit, and conditions of this certification, then there is reasonable assurance the project will comply with the state's numeric and narrative criteria. These criteria are set at levels that protect and maintain designated and existing beneficial uses. In addition, the project will be consistent with the *South Fork Coeur d'Alene River Sediment Subbasin Assessment and Total Maximum Daily Load*. The TMDL for Pine Creek indicates that the sediment load must be reduced to recover beneficial uses. This

project complies with the TMDL because it will remove two bridge piers that create scour and block bedload from moving downstream. Construction best management practices and conditions of this certification are focused on prevention of stream sedimentation and turbidity which should also prevent elevation of metals concentrations. Practices include a non-erosive cofferdam to carry the stream through the project that is sufficiently protective as to prevent the accidental entrainment of construction debris, construction materials, or associated sediment and turbidity. Existing bridge piers will be cut off at ground level to minimize streambed disturbance. Straw wattles, silt fences, and precautions taken to prevent petroleum spills from construction equipment. To prevent suspension of metals contaminated sediments, all excavated streambed must be disposed of on uplands and in accordance with the ICP program. In addition, portions of the existing bridge abutments will be left in place to minimize disturbance of potentially contaminated soils.

There is no available information indicating the presence of any existing beneficial uses aside from those that are already designated and discussed above; therefore, the permit ensures that the level of water quality necessary to protect both existing and designated uses is maintained and protected in compliance with the Tier I provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

High-Quality Waters (Tier II Protection)

Pine Creek is considered high quality for recreational uses. As such, the water quality relevant to this use must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to recreational uses of Pine Creek (IDAPA 58.01.02.052.06). These pollutants include the following: zinc. As previously stated, construction best management practices and conditions of this certification are focused on prevention of stream sedimentation and turbidity which should also prevent elevation of zinc concentrations as a result of this activity. By preventing the return of dredged materials to the stream channel the potential for elevated zinc levels is greatly reduced because turbidity will be reduced. Clean riprap is required so no additional zinc will be added from this source. Piers will be removed which should aid in the passage of bedload under the bridge. Prior to this, buildup of bedload had to be periodically dredged. By reducing this maintenance dredging, the amount of fine sediments should be reduced along with metals bound to the sediments. As such, the project complies with IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.06.

In order to maintain the ambient water quality conditions, permanent erosion and sediment controls must be implemented which will minimize or prevent future sediment contributions from the project area. The provisions in the 404 permit, coupled with the conditions of this certification, ensure that degradation to the Pine Creek AU or Pine Creek will not occur. Therefore, DEQ concludes that this project complies with the Tier II provisions of Idaho's WQS (IDAPA 58.01.02.051.02; 58.01.02.052.06 and 58.01.02.052.08).

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

General Conditions

1. This certification is conditioned upon the requirement that any modification (e.g., change in BMPs, work windows, etc.) of the permitted activity shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401. Such modifications may not be implemented until DEQ has determined whether additional certification is necessary.
2. DEQ reserves the right to modify, amend, or revoke this certification if DEQ determines that, due to changes in relevant circumstances—including without limitation, changes in project activities, the characteristics of the receiving water bodies, or state WQS—there is no longer reasonable assurance of compliance with WQS or other appropriate requirements of state law.
3. If ownership of the project changes, the certification holder shall notify DEQ, in writing, upon transferring this ownership or responsibility for compliance with these conditions to another person or party. The new owner/operator shall request, in writing, the transfer of this water quality certification to his/her name.
4. A copy of this certification must be kept on the job site and readily available for review by any contractor working on the project and any federal, state, or local government personnel.
5. Project areas shall be clearly identified in the field prior to initiating land-disturbing activities to ensure avoidance of impacts to waters of the state beyond project footprints.
6. The applicant shall provide access to the project site and all mitigation sites upon request by DEQ personnel for site inspections, monitoring, and/or to ensure that conditions of this certification are being met.
7. The applicant is responsible for all work done by contractors and must ensure the contractors are informed of and follow all the conditions described in this certification and the Section 404 permit.

Fill Material

8. Fill material subject to suspension shall be free of easily suspended fine material. The fill material to be placed shall be clean material only.
9. All temporary fills shall be removed in their entirety on or before construction completion.

Erosion and Sediment Control

10. BMPs for sediment and erosion control suitable to prevent exceedances of state WQS shall be selected and installed before starting construction at the site. One resource that may be used in evaluating appropriate BMPs is DEQ's *Catalog of Stormwater Best Management Practices for Idaho Cities and Counties*, available online at http://www.deq.idaho.gov/media/494058-entire.pdf. Other resources may also be used for selecting appropriate BMPs.

11. One of the first construction activities shall be placing permanent and/or temporary erosion and sediment control measures around the perimeter of the project or initial work areas to protect the project water resources.
12. Permanent erosion and sediment control measures shall be installed in a manner that will provide long-term sediment and erosion control to prevent excess sediment from entering waters of the state.
13. Erosion and sediment control measures shall be installed at the earliest practicable time consistent with good construction practices and shall be maintained as necessary throughout project operation.
14. At a minimum, BMPs must be inspected and maintained daily during project implementation.
15. BMP effectiveness shall be monitored during project implementation. BMPs shall be replaced or augmented if they are not effective.
16. All construction debris shall be properly disposed of so it cannot enter waters of the state or cause water quality degradation.
17. Disturbed areas suitable for vegetation shall be seeded or revegetated to prevent subsequent soil erosion.
18. Sediment from disturbed areas or able to be tracked by vehicles onto pavement must not be allowed to leave the site in amounts that would reasonably be expected to enter waters of the state. Placement of clean aggregate at all construction entrances or exits and other BMPs such as truck or wheel washes, if needed, must be used when earth-moving equipment will be leaving the site and traveling on paved surfaces.

Turbidity

19. Sediment resulting from this activity must be mitigated to prevent violations of the turbidity standard as stipulated under the Idaho WQS (IDAPA 58.01.02). *Any violation of this standard must be reported to the DEQ regional office immediately by calling (208) 666-4605. Leaving a voice mail is acceptable.*
20. All practical BMPs on disturbed banks and within the waters of the state must be implemented to minimize turbidity. Visual observation is acceptable to determine whether BMPs are functioning properly. If a plume is observed, the project may be causing an exceedance of WQS and the permittee must inspect the condition of the projects BMPs. If the BMPs appear to be functioning to their fullest capability, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs).
21. **Cofferdams and stream diversions must be implemented and properly maintained to minimize instream sediment suspension and resulting turbidity**.
22. **The method of stream diversion shall be sufficiently protective of water quality to prevent the accidental entrainment of construction debris, construction materials, and sediment**.
23. **Discharges of water into Pine Creek from construction areas (dewatering) shall not occur if water to be discharged is visibly turbid. Infiltration to an upland site is acceptable if ICP approves of this method. Contact DEQ's Coeur d'Alene Regional Office at (208) 666-4605 for more information.**

In-water Work

24. Work in open water is to be kept at a minimum and only when necessary. Equipment shall work from an upland site to minimize disturbance of waters of the state.
25. **Construction affecting the bed or banks shall take place only during periods of low flow.**
26. Fording of the channel is not permitted. Temporary bridges or other structures shall be built if crossings are necessary.
    a. Temporary crossings must be perpendicular to channels and located in areas with the least impact.
    b. Temporary crossings must be removed as soon as possible after the project is completed or the crossing is no longer needed.
27. Work in waters of the state shall be restricted to areas specified in the application.
28. Measures shall be taken to prevent wet concrete from entering into waters of the state when placed in forms and/or from truck washing.
29. Activities that include constructing and maintaining intake structures must include adequate fish screening devices to prevent fish entrainment or capture.
30. Stranded fish found in dewatered segments should be moved to a location (preferably downstream) with water.
31. To minimize sediment transport, stream channel or stream bank stabilization must be completed prior to returning water into a dewatered segment.

Pollutants/Toxics

32. The use of chemicals such as soil stabilizers, dust palliatives, sterilants, growth inhibitors, fertilizers, and deicing salts during construction and operation should be limited to the best estimate of optimum application rates. All reasonable measures shall be taken to avoid excess application and introduction of chemicals into waters of the state.

Vegetation Protection and Restoration

33. Disturbance of existing wetlands and native vegetation shall be kept to a minimum.
34. To the maximum extent practical, staging areas and access points should be placed in open, upland areas.
35. Fencing and other barriers should be used to mark the construction areas.
36. If authorized work results in unavoidable vegetative disturbance, riparian and wetland vegetation shall be successfully reestablished to function for water quality benefit at pre-project levels or improved at the completion of authorized work.

Dredge Material Management

37. **Excavated (dredged) streambed or staged fill material must be placed so it is isolated from the water's edge or wetlands and not placed where it could re-enter waters of the state.**
38. **Excavated streambed sediment shall be disposed per the Institutional Controls Program, Panhandle Health District. It shall not be returned to the streambed or banks.**

Management of Hazardous or Deleterious Materials

39. Petroleum products and hazardous, toxic, and/or deleterious materials shall not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of waters of the state. Adequate measures and controls must be in place to ensure that those materials will not enter waters of the state as a result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third-party activities.
40. Vegetable-based hydraulic fluid should be used on equipment operating in or directly adjacent to the channel if this fluid is available.
41. Daily inspections of all fluid systems on equipment to be used in or near waters of the state shall be done to ensure no leaks or potential leaks exist prior to equipment use. A log book of these inspections shall be kept on site and provided to DEQ upon request.
42. Equipment and machinery must be removed from the vicinity of the waters of the state prior to refueling, repair, and/or maintenance.
43. Equipment and machinery shall be steam cleaned of oils and grease in an upland location or staging area with appropriate wastewater controls and treatment prior to entering a water of the state. Any wastewater or wash water must not be allowed to enter a water of the state.
44. Emergency spill procedures shall be in place and may include a spill response kit (e.g., oil absorbent booms or other equipment).
45. In accordance with IDAPA 58.01.02.850, in the event of an unauthorized release of hazardous material to state waters or to land such that there is a likelihood that it will enter state waters, the responsible persons in charge must
    c. Make every reasonable effort to abate and stop a continuing spill.
    d. Make every reasonable effort to contain spilled material in such a manner that it will not reach surface or ground waters of the state.
    e. Call 911 if immediate assistance is required to control, contain, or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office during normal working hours or Idaho State Communications Center after normal working hours (1-800-632-8000). If the spilled volume is above federal reportable quantities, contact the National Response Center (1-800-424-8802).
        - Boise Regional Office: 208-373-0550 / 888-800-3480
        - Coeur d'Alene Regional Office: 208-769-1422 / 877-370-0017
        - Idaho Falls Regional Office: 208-528-2650 / 800-232-4635
        - Lewiston Regional Office: 208-799-4370 / 877-541-3304
        - Pocatello Regional Office: 208-236-6160 / 888-655-6160
        - Twin Falls Regional Office: 208-736-2190 / 800-270-1663
    f. Collect, remove, and dispose of the spilled material in a manner approved by DEQ.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to June Bergquist, Coeur d'Alene Regional Office at 208-666-4605 or via email at june.bergquist@deq.idaho.gov.

DRAFT

Daniel Redline
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